

Serial No. 10/576,809
Amendment Dated: October 31, 2007
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Attorney Docket No. 101108.57579US

Amendments to the Title:

Please amend the title to read as follows:

--GEAR PUMP HAVING INPUT AND OUTPUT SCREW SHAFTS WITH A
DECREASING FLIGHT DEPTH TOWARD A GEAR SECTION IN TRANSFER
MIX AREAS--.

Amendments to the Specification:

Please replace paragraph [0015] with the following amended paragraph:

[0015] According to the invention, transfer mix areas 22 and 25 adjoining the gear section 7 are constructed in the input extruder 6 as well as the output extruder 9. In the transfer mix areas 22 and 25, four flights 23 and 26 extend in the opposite direction to the slope of the helical configurations 27 and 29 respectively of the screw shafts 12, 20 toward the gear section 7 and end in circumferential areas of the sun wheel 14 between the planet wheels 16. In this case, the flight depth of the input screw shaft 12 and the output screw shaft 20 decreases in the direction of the gear section 7 while the cross-section of the flights 23 and 26 increases simultaneously. Here, the number of flights 23, 26 corresponds to the number of planet wheels 16, each feeding flight 23 discharging the delivered material directly in front of a planet wheel 16. The material is delivered in the circumferential direction in the second housing part 2b and, when the tothing of the planet wheel 16 engages in the tothing of the sun wheel 14, is discharged to a removing flight 26 of the transfer mix area 25 of the output extruder 9. Connection ducts may be constructed in the first housing part 2a and/or in the third housing part 2c. The connection ducts (one of which is illustrated schematically in the housing 2a by reference 35) mutually connect

the flights of the input transfer mix area 22 and the flights 26 of the output transfer mix area 25, respectively.